Goa Vidyaprasarak Mandal's

Gopal Govind Poy Raiturcar College of

Commerce and Economics, Ponda Goa

M.Com. Semester III End Examination, October-November 2024

COM 600 Research Methodology (OA-35)

Duration: 2 Hours Total Marks: 40

Instructions: *1) This paper consists of **six** questions carrying **equal** marks.*
*2) Question No. **1** consists of **5 compulsory** questions of **2 marks each**.*
*3) Answer **any three** questions from Q. No**. 2,3,4,5 and 6.***
4) Each question carries ten marks.

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1. Answer the following questions in short. (Marks) (CO) (BL)

a) What is Exploratory Research? **(2) (CO1) (BL2)**

b) What are Categorical and Numerical Variables? **(2) (CO3) (BL2)**

c) Explain the Reliability in Research. **(2) (CO2) (BL2)**

d) What is Plagiarism? **(2) (CO4) (BL2)**

e) What are the types of Errors in Hypothesis testing? **(2) (CO3) (BL2)**

2. For your major research work, explain the step-by-step process you will undertake to conduct the research. **(10) (CO2) (BL3)**

3. Describe the following techniques a researcher can use to analyse multivariate data.
   a) Structural Equation Modelling
   b) Exploratory Factor Analysis
   c) Multiple Linear Regression **(10) (CO3) (BL2)**

4. When analysing data, different tests are applied based on the sample size to ensure accurate results. Large sample tests are often used when sample sizes are sufficiently big to assume normal distribution, while small sample tests are employed when dealing with limited data and specific distribution assumptions. In this context, explain three tests that can be applied for large sample analysis and three for small sample analysis.
   (10) (CO3) (BL2)

5. A) Explain the methods of Data Collection. **(05) (CO2) (BL2)**
   B) Explain the components of a Research Report. **(05) (CO4) (BL2)**

6. **A)** A car rental company wants to analyse the relationship between the number of days a car is rented (independent variable *X*) and the total revenue generated from the rental (dependent variable Y). The company collects data over a period of 10 rentals, as shown below:

Days Rented (X)	1	2	3	4	5
Revenue (Y)	50	90	130	180	230

Using linear regression, determine the equation of the best-fit line and predict the revenue for a rental that lasts 3.5 days. **(05) (CO3) (BL3)**

B) A teacher records the scores of students in a mathematics exam and organises the data into groups (class intervals). The frequency distribution of scores is as follows:

Score Range (X)	0-10	11-20	21-30	31-40	41-50
Frequency (f)	2	3	5	8	2

Using this data, calculate the standard deviation of the scores. **(05) (CO3) (BL3)**